

## What is Lung Cancer?

The lung consists of three different zones:

- The squamoid cells that line the windpipe and the large airways. These cells serve as a protective layer against various inhaled substances.
- The central zone, where cells with tiny hairs, or *cilia*, produce a thin watery substance called mucus.
- The farthest zone of the lung, consisting of literally millions of tiny air sacs called alveoli, where the process of breathing occurs.

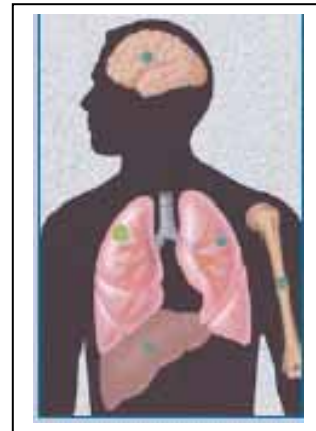
Each of these three areas, or zones, of the lung is affected differently by the toxic products in cigarette smoke. Some lung cancers can spontaneously arise without a history of smoking. However, the vast majority of lung cancers results from previous heavy, sustained smoking.

One of the first effects of cigarette smoke on the airways is the destruction of the ciliated cells that help the body move inhaled particles, including smoke particles, out of the body. Eventually, inflammation of the smaller airways (bronchitis) and destruction and coalescence of the tiny air sacs occur (emphysema). The process of sustaining the normal lining of the airway and repairing the damage caused by smoking is one that is quite tightly controlled in the healthy lung

## How Cancer Spreads

Cancer cells don't always stay in one place. They may enter the lymph system (a network of nodes and vessels that help your body fight disease).

Cancer can also enter the bloodstream and spread to other parts of the body. When cancer spreads, the process is called metastasis. Lung cancer that spreads (metastasizes) often goes to the other lung or the liver, brain, or bones.



## Types of Lung Cancer

There are four types of lung cancers, none of which are alike:

- **small-cell lung cancers** are cancers that arise from the hormonal cells in the lung
- **non-small-cell lung cancers**, which include: squamous-cell cancers, arise in the larger airways;
- **adenocarcinomas** (including large-cell carcinomas), occur in the secretory portion of the lung; and
- **bronchoalveolar carcinomas**, which arise in the cells that make up the small air sacs, or alveoli.

Each of these cancers retains some of the characteristics of the zone of the lung in which they arose, thereby behaving somewhat differently than the other forms of lung cancer.